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STATE DOCUMENTS

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ANALYSIS OF CONTRACTS AWARDED
CALENDAR YEAR 1969

PREPARED BY THE
MONTANA STATE HIGHWAY COMMISSION, STATE
PLANNING SURVEY SECTION

IN COOPERATION WITH THE
U. S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

CONTRACT ANALYSES
Calendar Year 1969

FOREWARD

The attached tabulations have been prepared from the Detailed Estimate and Contract Award sheet for all contracts awarded during the calendar year 1969. A brief explanation of each of the following tables is provided to help in the interpretation of the figures and to lessen the possibility of erroneous conclusions.

Table 1 - Summary of New and Reconstructed Roadway Only, by County and Financial District.

This table is intended to inform the user of how many actual miles of roadway were let to contract and the costs involved. It includes all items pertinent to the same section of roadway except structures.

Table 1A - Summary of Total Amounts Awarded by County and Financial District.

This table is a total of all miles and costs involved regardless of the type of project. Besides roadway costs, it includes signing, lighting, fencing and bridge projects.

Table 2 - Summary of Roadway Mileage Awarded by Systems.

The table involves the same type of construction as Table 1. Table 2, however, provides a cost per mile figure for the different systems and also provides a simple analysis of benefits by inclusion of the "cost per annual vehicle mile."

Table 3-3a-3c - Summary of Type of Construction.

A separate table has been prepared for each Federal Aid System with all projects including signing and Fencing classified into 10 different categories. The purpose of this table is to give a general indication of what type of construction is responsible for the major share of monies spent. For example, note the bulk of Interstate monies is spent for New Construction, whereas, the greater share for Primary and Secondary is spent for Reconstruction.

Table 4-4a-4c - Summary by Surface Type by Systems.

These tables indicate the average cost per mile of various items included in a completed roadway by type of surfacing. Caution should be exercised in using the average cost per mile data due to the small sample involved for some cost items.

Table 5 - Summary of Roadway Mileage Awarded by Number of Traffic Lanes.

This table deals with the same miles and costs involved in Tables 1 and 2.

Table 6-6a-6c-6d - Summary of Structures by Type.

These tables summarize the number of structures let by type and also provide a cost per square foot, by type of structure.

Table 7-7a-7c - Summary of Roadway Mileage Awarded by ADT.

The table involves only actual roadway constructed, as Tables 1, 2 and 5 and provides a relationship between the volumes of traffic, miles constructed and costs. It is possible to further develop this table to obtain a road user benefit on a vehicle mile basis.

Table 8 - Summary of Contracted and Non-contracted Costs by System.

Some items, such as railroad flagging, roadway materials, detours and traffic control devices are considered non-contract items in certain instances. The costs of such items are included in the Detailed Estimate, but not in the Contract Award Amount. This table tabulates the two costs for the users information.

STATE HIGHWAY COMMISSION OF MONTANA
PLANNING SURVEY SECTION

SUMMARY OF ROADWAY MILEAGE ADDED
BY COUNTY AND FINANCIAL DISTRICT
DURING CALENDAR YEAR 1976

THIS TABLE SUMMARIZES ONLY NEW OR RECONSTRUCTED ROADWAY. REFER TO TABLE 1A FOR THE TOTAL AMOUNTS OF CONTRACTS AWARDED
DECEMBER 31, 1970

TABLE 1

| COUNTY AND FINANCIAL DISTRICT | INTERSTATE SYSTEM MILES | INTERSTATE SYSTEM COST | PRIMARY SYSTEM MILES | PRIMARY SYSTEM COST | SECONDARY SYSTEM MILES | SECONDARY SYSTEM COST | OTHER SYSTEMS MILES | OTHER SYSTEMS COST | ALL SYSTEMS MILES | ALL SYSTEMS COST |
|----------------------------------|----------------------------|---------------------------|-------------------------|------------------------|---------------------------|--------------------------|------------------------|-----------------------|----------------------|---------------------|
| FLATHEAD | --- | --- | 240 | 167,843 | --- | --- | --- | --- | 240 | 167,843 |
| LAKE | --- | --- | 7,139 | 1,413,706 | --- | --- | --- | --- | 7,667 | 1,519,715 |
| LINCOLN | --- | --- | 2,325 | 1,852,650 | --- | --- | --- | --- | 3,886 | 1,332,652 |
| FD #01 | --- | --- | 11,554 | 3,451,809 | --- | --- | --- | --- | 11,793 | 3,541,218 |
| HILL | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| TOOLE | 5,214 | 2,074,255 | 1,319 | 174,396 | 6,217 | 391,793 | --- | --- | 7,536 | 556,359 |
| FD #02 | 5,214 | 2,074,255 | 1,319 | 174,396 | 6,217 | 391,793 | --- | --- | 9,216 | 2,076,286 |
| PHILLIPS | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| ROOSEVELT | --- | --- | 7,641 | 1,182,061 | 10,832 | 757,252 | --- | --- | 10,832 | 757,252 |
| VALLEY | --- | --- | --- | --- | 2,272 | 772,451 | --- | --- | 7,641 | 1,182,061 |
| FD #03 | --- | --- | 7,641 | 1,182,061 | 20,104 | 1,529,793 | --- | --- | 27,745 | 2,711,794 |
| CUSTER | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| FD #04 | --- | --- | 7,734 | 1,523,579 | --- | --- | --- | --- | 7,734 | 1,523,579 |
| FERGUS | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| FD #05 | --- | --- | --- | --- | 4,537 | 410,503 | --- | --- | 4,537 | 410,503 |
| CASCADE | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| CHUTEAU | 12,739 | 3,574,698 | 2,022 | 1,929,603 | --- | --- | --- | --- | 15,831 | 5,404,301 |
| JUDITH BASIN | --- | --- | 1,223 | 200,719 | 5,310 | 283,347 | --- | --- | 1,223 | 200,719 |
| TETON | --- | --- | --- | --- | 5,974 | 478,453 | --- | --- | 5,310 | 283,347 |
| FD #06 | 12,739 | 3,574,698 | 4,215 | 2,000,222 | 11,293 | 761,910 | --- | --- | 28,347 | 478,453 |
| JEFFERSON | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| LEWIS & CLARK | 5,397 | 1,997,921 | --- | --- | 3,379 | 560,743 | --- | --- | 9,317 | 2,558,674 |
| FD #07 | 5,397 | 1,997,921 | --- | --- | 4,365 | 224,724 | --- | --- | 4,365 | 224,724 |
| GRANITE | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| MISSOULA | 3,131 | 1,263,426 | --- | --- | --- | --- | --- | --- | 3,131 | 1,263,426 |
| POWELL | 22,398 | 11,559,782 | --- | --- | 2,956 | 516,985 | --- | --- | 22,398 | 11,559,782 |
| SANDERS | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| FD #09 | 25,529 | 12,523,208 | 4,731 | 1,210,077 | 2,985 | 512,985 | --- | --- | 4,731 | 1,210,077 |
| | | | 4,731 | 1,210,077 | 2,985 | 512,985 | --- | --- | 33,226 | 14,550,270 |

STATE HIGHWAY COMMISSION OF MONTANA
PLANNING SURVEY SECTION

SUMMARY OF ROADWAY MILEAGE AWARDED
BY COUNTY AND FINANCIAL DISTRICT
DURING CALENDAR YEAR 1969

THIS TABLE SUMMARIZES ONLY NEW OR RECONSTRUCTED ROADWAY. REFER TO TABLE 1A FOR THE TOTAL AMOUNTS OF CONTRACTS AWARDED
DECEMBER 31, 1970

TABLE 1

| COUNTY AND FINANCIAL DISTRICT | INTERSTATE SYSTEM MILES | INTERSTATE SYSTEM COST | PRIMARY SYSTEM MILES | PRIMARY SYSTEM COST | SECONDARY SYSTEM MILES | SECONDARY SYSTEM COST | OTHER SYSTEMS MILES | OTHER SYSTEMS COST | ALL SYSTEMS MILES | ALL SYSTEMS COST |
|----------------------------------|----------------------------|---------------------------|-------------------------|------------------------|---------------------------|--------------------------|------------------------|-----------------------|----------------------|---------------------|
| BEAVERHEAD | 15.173 | 4,891,946 | 1.298 | 921,766 | 3.503 | 576,647 | --- | --- | 18.781 | 5,468,793 |
| SILVER BOW | 15.173 | 4,891,946 | 1.298 | 921,766 | 3.503 | 576,647 | --- | --- | 18.781 | 5,468,793 |
| FD #09 | --- | --- | --- | --- | --- | --- | --- | --- | 20.079 | 921,766 |
| GALLATIN | --- | --- | 5.937 | 269,566 | --- | --- | --- | --- | 5.937 | 269,566 |
| WHEATLAND | --- | --- | 5.982 | 1,038,917 | --- | --- | --- | --- | 5.982 | 1,038,917 |
| FD #10 | --- | --- | 6.569 | 1,307,543 | --- | --- | --- | --- | 6.569 | 1,307,543 |
| CARRON | --- | --- | --- | --- | 4.437 | 75,123 | --- | --- | 4.437 | 75,123 |
| STILLWATER | --- | --- | --- | --- | 7.452 | 601,911 | --- | --- | 7.452 | 601,911 |
| YELLOWSTONE | --- | --- | 6.623 | 449,561 | --- | --- | --- | --- | 6.623 | 449,561 |
| FD #11 | --- | --- | 6.623 | 449,561 | --- | --- | --- | --- | 6.623 | 449,561 |
| CAPTER | --- | --- | --- | --- | 9.085 | 651,445 | --- | --- | 9.085 | 651,445 |
| ROSEBUD | 17.013 | 4,962,816 | --- | --- | --- | --- | --- | --- | 17.013 | 4,962,816 |
| FD #12 | 17.013 | 4,962,816 | --- | --- | --- | --- | --- | --- | 17.013 | 4,962,816 |
| TOTAL | 85.272 | 30,326,875 | 45.554 | 12,333,614 | 76.433 | 6,448,276 | --- | --- | 205.059 | 49,134,765 |

STATE HIGHWAY COMMISSION OF MONTANA
PLANNING SURVEY SECTION

SUMMARY OF TOTAL AMOUNTS AWARDED
BY COUNTY AND FINANCIAL DISTRICT
OPENING CALENDAR YEAR 1969

TABLE 1A

DECEMBER 31, 1970

| COUNTY AND FINANCIAL DISTRICT | INTERSTATE SYSTEM MILES | INTERSTATE SYSTEM COST | PRIMARY SYSTEM MILES | PRIMARY SYSTEM COST | SECONDARY SYSTEM MILES | SECONDARY SYSTEM COST | OTHER SYSTEMS MILES | OTHER SYSTEMS COST | ALL SYSTEMS MILES | ALL SYSTEMS COST |
|----------------------------------|----------------------------|---------------------------|-------------------------|------------------------|---------------------------|--------------------------|------------------------|-----------------------|----------------------|---------------------|
| FINANCIAL DISTRICT | | | | | | | | | | |
| FLATHEAD | | | 240 | 167,843 | 25,200 | 21,206 | | | 45,240 | 189,049 |
| LAKE | | | 14,394 | 1,416,472 | 460 | 106,000 | | | 15,865 | 1,522,481 |
| LINCOLN | | | 4,251 | 2,282,123 | 21,500 | 11,243 | | | 25,251 | 2,100,366 |
| FD #01 | | | 18,697 | 3,673,438 | 56,000 | 138,458 | | | 75,686 | 3,911,896 |
| GLACIER | | | 6,973 | 62,475 | 000 | 71,000 | | | 6,903 | 133,765 |
| HILL | | | 1,332 | 222,580 | 6,217 | 381,663 | | | 9,216 | 604,643 |
| TOOLE | | | 0,205 | 295,055 | 6,247 | 453,353 | | | 21,668 | 2,528,558 |
| FD #02 | | | | | | | | | | 3,266,966 |
| DANIELS | | | | | 18,600 | 6,503 | | | 18,600 | 6,593 |
| PHILLIPS | | | | | 10,322 | 757,252 | | | 10,832 | 757,252 |
| ROOSEVELT | | | 7,562 | 1,279,048 | 90,600 | 17,225 | | | 107,262 | 1,297,173 |
| SHERIDAN | | | | | 14,360 | 330,002 | | | 14,362 | 330,302 |
| VALLEY | | | | | 51,372 | 285,246 | | | 51,672 | 285,246 |
| FD #03 | | | 7,662 | 1,279,948 | 205,366 | 1,046,618 | | | 212,728 | 3,176,566 |
| CUSTER | | | 10,934 | 1,301,705 | | | | | 10,834 | 1,801,705 |
| DAWSON | | | 80,900 | 77,060 | | | | | 88,712 | 102,372 |
| PRAIRIE | | | 26,321 | 2,773,037 | | | | | 22,907 | 2,773,037 |
| FD #04 | | | 30,810 | 3,798,360 | 91,534 | 1,878,754 | | | 122,453 | 5,677,114 |
| FERGUS | | | | | 12,300 | 4,251 | | | 20,840 | 541,536 |
| FD #05 | | | 12,300 | 4,251 | 4,580 | 537,285 | | | 20,840 | 541,536 |
| CASCADE | | | 21,000 | 9,955,644 | 3,092 | 1,489,119 | | | 24,092 | 11,844,763 |
| CHouteau | | | 1,223 | 200,710 | 96,900 | 22,000 | | | 98,123 | 223,699 |
| JUDITH BASIN | | | 52,500 | 18,403 | 5,310 | 243,247 | | | 57,819 | 302,150 |
| PONDERA | | | 308 | 33,003 | | | | | 308 | 33,003 |
| TETON | | | | | 5,031 | 529,072 | | | 5,031 | 529,072 |
| FD #06 | | | 21,000 | 9,955,644 | 57,123 | 845,369 | | | 178,333 | 12,932,681 |
| BROADWATER | | | 2,553 | 592,516 | | | | | 2,553 | 592,516 |
| JEFFERSON | | | 28,720 | 5,833,485 | 7,340 | 569,537 | | | 40,883 | 6,409,156 |
| LEWIS & CLARK | | | 5,419 | 3,291,729 | 4,345 | 294,784 | | | 9,764 | 3,586,523 |
| FD #07 | | | 30,692 | 9,717,830 | 4,323 | 864,331 | | | 35,200 | 10,588,295 |
| GRANITE | | | 3,131 | 1,274,302 | 35,800 | 14,528 | | | 38,931 | 1,292,830 |
| MINEPAI | | | | 9,454 | | | | | | 9,454 |

STATE HIGHWAY COMMISSION OF MONTANA
PLANNING SURVEY SECTION

SUMMARY OF TOTAL AMOUNTS AWARDED
BY COUNTY AND FINANCIAL DISTRICT
DURING CALENDAR YEAR 1960
TABLE 1A

DECEMBER 31, 1970

| COUNTY AND FINANCIAL DISTRICT | INTERSTATE SYSTEM MILES | INTERSTATE SYSTEM COST | PRIMARY SYSTEM MILES | PRIMARY SYSTEM COST | SECONDARY SYSTEM MILES | SECONDARY SYSTEM COST | OTHER MILES | OTHER SYSTEMS COST | ALL SYSTEMS MILES | ALL SYSTEMS COST |
|----------------------------------|----------------------------|---------------------------|-------------------------|------------------------|---------------------------|--------------------------|----------------|--------------------------|----------------------|---------------------|
| MISSOULA | 22.610 | 12,605,199 | | 107,661 | | | | | 22.618 | 12,712,840 |
| POWELL | | 16,315 | | | 2,955 | 516,096 | | | 2,966 | 533,300 |
| SANDERS | | | | | 32,222 | 15,521 | | | 36,237 | 1,223,264 |
| FD #08 | 25.745 | 13,405,270 | 40.537 | 1,392,012 | 35,156 | 532,506 | | | 101.452 | 15,831,788 |
| BEAVERHEAD | 15.264 | 5,466,999 | | | 3,614 | 632,383 | | | 18.863 | 6,099,382 |
| DEER LODGE | | | 17.500 | 8,371 | | | | | 17.500 | 8,371 |
| SILVER BOW | 5.095 | 36,304 | 1.303 | 1,054,736 | | | | | 7.393 | 1,091,040 |
| FD #09 | 21.340 | 5,503,303 | 18.203 | 1,043,157 | 3,614 | 632,383 | | | 43.862 | 7,198,793 |
| GALLATIN | 13.950 | 4,056,823 | 5.597 | 276,740 | | | | | 14.537 | 4,347,119 |
| MEAGHER | | | 57.720 | 286,465 | | | | | 57.723 | 286,465 |
| PARK | | 8,600 | | | | | | | | 8,690 |
| WHEATLAND | | | | | | | | | | |
| FD #10 | 13.550 | 4,065,553 | 29.576 | 1,317,712 | 4,878 | 110,263 | | | 34.554 | 1,423,082 |
| | | | 37.991 | 1,883,924 | 4,378 | 120,873 | | | 106.819 | 5,070,356 |
| BIG HORN | 5.346 | 1,796,272 | | | | | | | 5.946 | 1,831,872 |
| CARRON | | | | | .485 | 25,600 | | | .486 | 259,203 |
| MUSSELSHELL | | | | | 7,924 | 238,547 | | | 7,924 | 238,547 |
| STILLWATER | 28.626 | 5,125,058 | | | 7,452 | 601,911 | | | 36.078 | 5,726,969 |
| TREASURF | | | | | .825 | 9,584 | | | .825 | 9,586 |
| YELLOWSTONE | 16.481 | 51,046 | | | | | | | | |
| FD #11 | 31.053 | 6,978,376 | 6.623 | 443,661 | 17.587 | 1,142,847 | | | 17.104 | 506,707 |
| | | | 5.623 | 443,661 | | | | | 68.263 | 8,572,884 |
| CARTER | | | | | 6,085 | 651,445 | | | 6.085 | 651,445 |
| ROSEMUD | 17.027 | 6,105,153 | | | | | | | 17.027 | 6,105,153 |
| FD #12 | 17.027 | 6,105,153 | | | 9,095 | 651,445 | | | 26.182 | 6,756,598 |
| TOTAL | 226.916 | 52,558,047 | 351.398 | 14,059,928 | 452.592 | 7,807,604 | | | 931.506 | 84,425,479 |

STATE HIGHWAY COMMISSION OF MONTANA
PLANNING SURVEY SECTION

SUMMARY OF ROADWAY MILEAGE AWARDED BY SYSTEMS
DURING CALENDAR YEARS 1969

THIS TABLE SUMMARIZES ONLY NEW OR RECONSTRUCTED ROADWAYS
TABLE 2

DECEMBER 31, 1970

| SYSTEM | MILEAGE | TOTAL COST | COST PER MILE | ANNUAL VEHICLE MILES | COST PER ANNUAL VEHICLE MILE |
|---------------------------|----------------|-------------------|------------------|-------------------------|------------------------------------|
| RURAL | | | | | |
| INTERSTATE RURAL | 84.797 | 30,277,984 | 357,064 | 52,350,490 | 00.578 |
| PRIMARY RURAL | 39.668 | 8,725,524 | 219,963 | 19,177,330 | 00.454 |
| SECONDARY RURAL | 73.064 | 6,362,267 | 85,918 | 3,161,265 | 02.012 |
| OTHER | | | | | 00.000 |
| SUBTOTAL RURAL | 198.429 | 45,365,775 | 228,524 | 74,589,585 | 00.607 |
| MUNICIPAL | | | | | |
| INTERSTATE MUNICIPAL | .275 | 48,891 | 177,785 | 97,235 | 00.560 |
| PRIMARY MUNICIPAL | 5.386 | 3,614,090 | 614,014 | 15,338,400 | 00.234 |
| SECONDARY MUNICIPAL | .469 | 106,009 | 226,731 | 148,920 | 00.711 |
| OTHER | | | | | 00.000 |
| SUBTOTAL MUNICIPAL | 6.630 | 3,768,990 | 569,475 | 15,624,555 | 00.241 |
| TOTAL BY SYSTEM | | | | | |
| INTERSTATE | 95.072 | 30,325,875 | 355,484 | 52,437,725 | 00.578 |
| PRIMARY | 45.554 | 12,339,614 | 270,878 | 34,546,230 | 00.256 |
| SECONDARY | 74.433 | 6,468,276 | 85,900 | 3,310,185 | 01.954 |
| OTHER | | | | | 00.000 |
| GRAND TOTAL | 205.059 | 49,134,765 | 239,612 | 90,314,140 | 00.544 |

STATE HIGHWAY COMMISSION OF MONTANA
PLANNING SURVEY SECTION

SUMMARY OF TYPE OF CONSTRUCTION
DURING CALENDAR YEAR 1969
BY SYSTEM

TABLE 3

DECEMBER 31, 1970

| TYPE OF CONSTRUCTION | INTERSTATE | |
|---------------------------------------|------------|------------|
| | MILES | COST |
| RURAL | | |
| NEW CONSTRUCTION | 78.650 | 28,936,474 |
| RECONSTRUCTION | | |
| ADD TWO LANES | 6.147 | 1,341,510 |
| MAJOR STRUCTURES | | 12,915,838 |
| RESURFACE | | |
| STAGE CONSTRUCTION | 71.168 | 16,899,875 |
| TRAFFIC CONTROL, SEEDING & FENCING | 62.059 | 304,772 |
| REST AREA, WEIGH STN & SENIC OVERLOOK | | 534,987 |
| WIDENING ROADWAY | | |
| OTHER | 4.684 | 157,278 |
| TOTAL | | 61,090,734 |
| MUNICIPAL | | |
| NEW CONSTRUCTION | .275 | 48,891 |
| RECONSTRUCTION | | |
| ADD TWO LANES | | |
| MAJOR STRUCTURES | | 898,510 |
| RESURFACE | | |
| STAGE CONSTRUCTION | 1.912 | 495,585 |
| TRAFFIC CONTROL, SEEDING & FENCING | .831 | 24,327 |
| REST AREA, WEIGH STN & SENIC OVERLOOK | | |
| WIDENING ROADWAY | | |
| OTHER | | |
| TOTAL | | 1,467,313 |
| ALL CONSTRUCTION | | |
| NEW CONSTRUCTION | 78.925 | 28,985,365 |
| RECONSTRUCTION | | |
| ADD TWO LANES | 6.147 | 1,341,510 |
| MAJOR STRUCTURES | | 13,814,348 |
| RESURFACE | | |
| STAGE CONSTRUCTION | 73.080 | 17,395,460 |
| TRAFFIC CONTROL, SEEDING & FENCING | 62.890 | 329,099 |
| REST AREA, WEIGH STN & SENIC OVERLOOK | | 534,987 |
| WIDENING ROADWAY | | |
| OTHER | 4.684 | 157,278 |
| TOTAL | | 62,558,047 |

STATE HIGHWAY COMMISSION OF MONTANA
PLANNING SURVEY SECTION

SUMMARY OF TYPE OF CONSTRUCTION
DURING CALENDAR YEAR 1969

BY SYSTEM
TABLE 3A

DECEMBER 31, 1970

| TYPE OF CONSTRUCTION | PRIMARY 1 | |
|---------------------------------------|-----------|------------|
| | MILES | COST |
| RURAL | | |
| NEW CONSTRUCTION | | |
| RECONSTRUCTION | 39.668 | 8,725,524 |
| ADD TWO LANES | | |
| MAJOR STRUCTURES | | 508,338 |
| RESURFACE | 9.428 | 267,256 |
| STAGE CONSTRUCTION | | |
| TRAFFIC CONTROL, SEEDING & FENCING | 291.792 | 191,078 |
| REST AREA, WEIGH STN & SENIC OVERLOOK | | 51,700 |
| WIDENING ROADWAY | .333 | 67,924 |
| OTHER | | 169,440 |
| TOTAL | | 9,981,260 |
| MUNICIPAL | | |
| NEW CONSTRUCTION | .587 | 268,566 |
| RECONSTRUCTION | 5.299 | 3,345,524 |
| ADD TWO LANES | | |
| MAJOR STRUCTURES | | 157,221 |
| RESURFACE | | |
| STAGE CONSTRUCTION | | |
| TRAFFIC CONTROL, SEEDING & FENCING | 4.760 | 213,583 |
| REST AREA, WEIGH STN & SENIC OVERLOOK | | |
| WIDENING ROADWAY | | |
| OTHER | | 93,774 |
| TOTAL | | 4,078,668 |
| ALL CONSTRUCTION | | |
| NEW CONSTRUCTION | .587 | 268,566 |
| RECONSTRUCTION | 44.967 | 12,071,048 |
| ADD TWO LANES | | |
| MAJOR STRUCTURES | | 665,559 |
| RESURFACE | 9.428 | 267,256 |
| STAGE CONSTRUCTION | | |
| TRAFFIC CONTROL, SEEDING & FENCING | 296.552 | 404,661 |
| REST AREA, WEIGH STN & SENIC OVERLOOK | | 51,700 |
| WIDENING ROADWAY | .333 | 67,924 |
| OTHER | | 263,214 |
| TOTAL | | 14,059,928 |

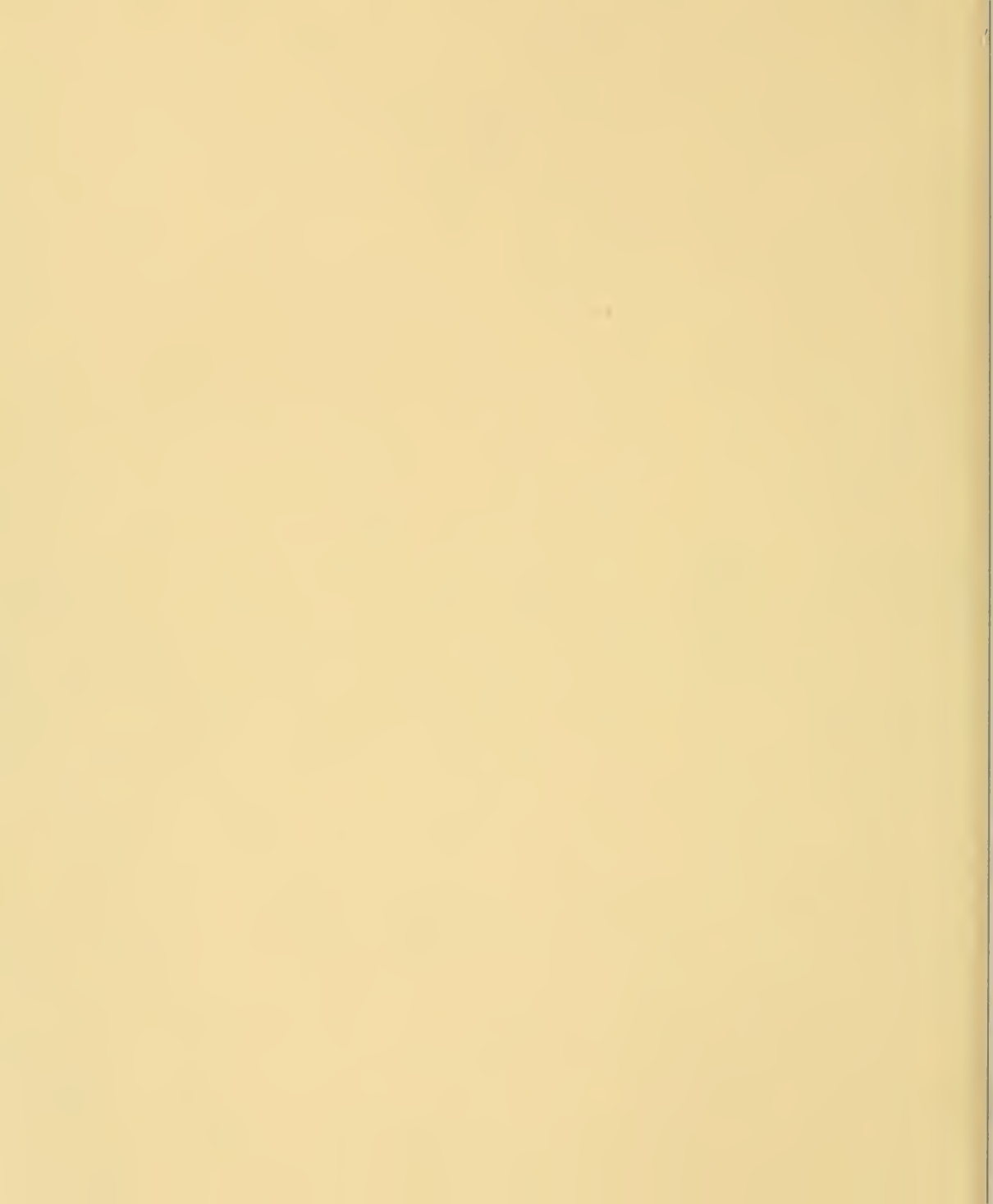
STATE HIGHWAY COMMISSION OF MONTANA
PLANNING SURVEY SECTION

SUMMARY OF TYPE OF CONSTRUCTION
DURING CALENDAR YEAR 1969
BY SYSTEM

TABLE 3C

DECEMBER 31, 1970

| TYPE OF CONSTRUCTION | SECONDARY | |
|---------------------------------------|-----------|-----------|
| | MILES | COST |
| RURAL | | |
| NEW CONSTRUCTION | 2.966 | 516,985 |
| RECONSTRUCTION | 70.998 | 5,845,282 |
| ADD TWO LANES | | |
| MAJOR STRUCTURES | | 416,607 |
| RESURFACE | 4.878 | 110,363 |
| STAGE CONSTRUCTION | 22.186 | 568,849 |
| TRAFFIC CONTROL, SEEDING & FENCING | 349.620 | 114,933 |
| REST AREA, WEIGH STN & SENIC OVERLOOK | | |
| WIDENING ROADWAY | | |
| OTHER | .855 | 127,092 |
| TOTAL | | 7,700,111 |
| MUNICIPAL | | |
| NEW CONSTRUCTION | | |
| RECONSTRUCTION | .469 | 106,009 |
| ADD TWO LANES | | |
| MAJOR STRUCTURES | | |
| RESURFACE | | |
| STAGE CONSTRUCTION | | |
| TRAFFIC CONTROL, SEEDING & FENCING | .500 | 1,384 |
| REST AREA, WEIGH STN & SENIC OVERLOOK | | |
| WIDENING ROADWAY | | |
| OTHER | | |
| TOTAL | | 107,393 |
| ALL CONSTRUCTION | | |
| NEW CONSTRUCTION | 2.966 | 516,985 |
| RECONSTRUCTION | 71.467 | 5,951,291 |
| ADD TWO LANES | | |
| MAJOR STRUCTURES | | 416,607 |
| RESURFACE | 4.878 | 110,363 |
| STAGE CONSTRUCTION | 22.186 | 568,849 |
| TRAFFIC CONTROL, SEEDING & FENCING | 350.120 | 116,317 |
| REST AREA, WEIGH STN & SENIC OVERLOOK | | |
| WIDENING ROADWAY | | |
| OTHER | .855 | 127,092 |
| TOTAL | | 7,807,504 |



STATE HIGHWAY COMMISSION OF MONTANA
PLANNING SURVEY SECTION

SUMMARY BY SURFACE TYPE
DURING CALENDAR YEAR 1969
INTERSTATE SYSTEM

TABLE 4

DECEMBER 31, 1970

| COST ITEM | | SURFACE TYPE | | | ALL | MISC. |
|---------------|---------------|--------------|------------|-----------|------------|------------|
| | | STAGE CONST. | BITUM. MIX | CONCRETE | CONST. | ITEMS |
| GRADING | MILES | 20.559 | 112.502 | 17.495 | 150.556 | |
| | COST | 3,400,101 | 9,326,625 | 1,109,785 | 13,836,511 | |
| | COST/MILE | 165,382 | 82,901 | 63,434 | 91,902 | |
| DRAINAGE | MILES | 20.559 | 97.625 | 17.495 | 135.679 | 4.502 |
| | COST | 1,279,038 | 2,238,669 | 359,634 | 3,877,341 | 7,439 |
| | COST/MILE | 62,213 | 22,931 | 20,556 | 28,577 | 1,652 |
| FOUNDATION | MILES | 19.422 | 120.280 | 17.495 | 157.197 | |
| | COST | 334,069 | 7,977,574 | 1,536,483 | 9,848,126 | |
| | COST/MILE | 17,200 | 66,325 | 87,824 | 62,648 | |
| SURFACING | MILES | 18.910 | 120.280 | 17.495 | 156.685 | |
| | COST | 126,852 | 8,818,809 | 2,778,091 | 11,723,752 | |
| | COST/MILE | 6,708 | 73,318 | 158,793 | 74,823 | |
| RDSIDE DEVEL. | MILES | 1.137 | 74.229 | 10.170 | 85.536 | 7.912 |
| | COST | 14,586 | 181,921 | 1,821 | 198,328 | 488,184 |
| | COST/MILE | 12,828 | 2,450 | 179 | 2,318 | 61,701 |
| EROSION CTL. | MILES | 20.559 | 116.327 | 17.495 | 154.381 | 46.085 |
| | COST | 341,518 | 742,725 | 125,336 | 1,209,579 | 143,365 |
| | COST/MILE | 16,611 | 6,384 | 7,164 | 7,835 | 3,110 |
| TRAFFIC CTL. | MILES | 20.047 | 120.280 | 17.495 | 157.822 | 46.085 |
| | COST | 8,500 | 1,728,484 | 268,552 | 2,005,536 | 17,700 |
| | COST/MILE | 424 | 14,370 | 15,350 | 12,707 | 384 |
| FENCING | MILES | 19.276 | 70.466 | 17.495 | 107.237 | 21.307 |
| | COST | 3,780 | 568,917 | 124,256 | 696,953 | 159,002 |
| | COST/MILE | 196 | 8,073 | 7,102 | 6,499 | 7,462 |
| MISC. | MILES | 3.475 | 29.147 | 10.170 | 42.792 | 4.502 |
| | COST | 35,985 | 810 | 6,290 | 43,085 | 57,611 |
| | COST/MILE | 10,355 | 27 | 618 | 1,006 | 12,796 |
| BRIDGES | SQ. FEET | | | | | 689,500 |
| | COST | | | | | 12,558,514 |
| | COST/SQ. FOOT | | | | | 18.213 |
| ALL ITEMS | MILES | 20.559 | 120.280 | 17.495 | 158.334 | 68.582 |
| | COST | 5,544,429 | 31,584,534 | 6,310,248 | 43,439,211 | 13,431,815 |
| | COST/MILE | 269,683 | 262,591 | 360,688 | 274,351 | 195,850 |

STATE HIGHWAY COMMISSION OF MONTANA
PLANNING SURVEY SECTION

SUMMARY BY SURFACE TYPE
DURING CALENDAR YEAR 1969
PRIMARY SYSTEM

DECEMBER 31, 1970

TABLE 4A

| COST ITEM | | GRAVEL | SURFACE TYPE BITUM. MIX | CONCRETE | ALL CONST. | MISC. ITEMS |
|---------------|---------------|--------|----------------------------|-----------|---------------|----------------|
| GRADING | MILES | | 54.973 | .177 | 55.150 | .165 |
| | COST | | 2,660,344 | 9,694 | 2,670,038 | 65,947 |
| | COST/MILE | | 48,393 | 54,768 | 48,414 | 399,678 |
| DRAINAGE | MILES | | 54.973 | .177 | 55.150 | .165 |
| | COST | | 1,923,112 | 124,003 | 2,047,115 | 123,573 |
| | COST/MILE | | 34,982 | 700,581 | 37,119 | 748,927 |
| FOUNDATION | MILES | | 54.973 | .177 | 55.150 | .165 |
| | COST | | 2,683,432 | 28,120 | 2,711,552 | 4,930 |
| | COST/MILE | | 48,813 | 158,870 | 49,166 | 29,878 |
| SURFACING | MILES | | 54.973 | .177 | 55.150 | .165 |
| | COST | | 2,427,519 | 80,267 | 2,507,786 | 53,186 |
| | COST/MILE | | 44,158 | 453,485 | 45,472 | 322,339 |
| RDSIDE DEVEL. | MILES | | 8.400 | .177 | 8.577 | |
| | COST | | 180,948 | 6,136 | 187,084 | |
| | COST/MILE | | 21,541 | 34,666 | 21,812 | |
| EROSION CTL. | MILES | | 40.464 | | 40.464 | |
| | COST | | 149,640 | 200 | 149,840 | 9,484 |
| | COST/MILE | | 3,698 | | 3,703 | |
| TRAFFIC CTL. | MILES | | 54.973 | .177 | 55.150 | 279.138 |
| | COST | | 1,130,108 | 23,889 | 1,153,997 | 339,783 |
| | COST/MILE | | 20,557 | 134,966 | 20,924 | 1,217 |
| FENCING | MILES | | .854 | | .854 | 17.579 |
| | COST | | 4,918 | | 4,918 | 31,391 |
| | COST/MILE | | 5,758 | | 5,758 | 1,785 |
| MISC. | MILES | | 4.995 | .177 | 5.172 | |
| | COST | | 29,300 | 39,350 | 68,650 | 48,600 |
| | COST/MILE | | 5,865 | 222,316 | 13,273 | |
| BRIDGES | SQ. FEET | | | | | 32,992 |
| | COST | | | | | 605,057 |
| | COST/SQ. FOOT | | | | | 18.339 |
| ALL ITEMS | MILES | | 54.973 | .177 | 55.150 | 296.848 |
| | COST | | 11,189,321 | 311,659 | 11,500,980 | 1,281,951 |
| | COST/MILE | | 203,542 | 1,760,785 | 208,539 | 4,318 |

STATE HIGHWAY COMMISSION OF MONTANA
PLANNING SURVEY SECTION

SUMMARY BY SURFACE TYPE
DURING CALENDAR YEAR 1969
SECONDARY SYSTEM

TABLE 4C

DECEMBER 31, 1970

| COST ITEM | | SURFACE TYPE | | | ALL | MISC. |
|---------------|---------------|--------------|------------|----------|-----------|-----------|
| | | GRAVEL | BITUM. MIX | CONCRETE | CONST. | ITEMS |
| GRADING | MILES | 14.362 | 87.135 | | 101.497 | |
| | COST | 169,263 | 2,034,096 | | 2,203,359 | |
| | COST/MILE | 11,785 | 23,344 | | 21,708 | |
| DRAINAGE | MILES | 14.362 | 87.135 | | 101.497 | |
| | COST | 50,008 | 767,783 | | 817,791 | 27,864 |
| | COST/MILE | 3,481 | 8,811 | | 8,057 | |
| FOUNDATION | MILES | 14.362 | 87.135 | | 101.497 | |
| | COST | 70,802 | 1,187,347 | | 1,258,149 | 2,100 |
| | COST/MILE | 4,929 | 13,626 | | 12,395 | |
| SURFACING | MILES | 14.362 | 87.135 | | 101.497 | |
| | COST | 1,257 | 1,868,082 | | 1,869,339 | |
| | COST/MILE | 87 | 21,438 | | 18,417 | |
| RDSIDE DEVEL. | MILES | | 9.272 | | 9.272 | |
| | COST | | 13,526 | | 13,526 | |
| | COST/MILE | | 1,458 | | 1,458 | |
| EROSION CTL. | MILES | 8.519 | 77.002 | | 85.521 | .825 |
| | COST | 1,185 | 84,460 | | 85,645 | 9,615 |
| | COST/MILE | 139 | 1,096 | | 1,001 | 11,654 |
| TRAFFIC CTL. | MILES | 14.362 | 87.135 | | 101.497 | 346.200 |
| | COST | 7,763 | 235,161 | | 242,924 | 108,819 |
| | COST/MILE | 540 | 2,698 | | 2,393 | 314 |
| FENCING | MILES | | 4.345 | | 4.345 | 3.920 |
| | COST | | 6,000 | | 6,000 | 7,986 |
| | COST/MILE | | 1,380 | | 1,380 | 2,037 |
| MISC. | MILES | | 2.966 | | 2.966 | .030 |
| | COST | | 1,000 | | 1,000 | 64,900 |
| | COST/MILE | | 337 | | 337 | 2,163,333 |
| BRIDGES | SQ. FEET | | | | | 20,721 |
| | COST | | | | | 378,735 |
| | COST/SQ. FOOT | | | | | 18.277 |
| ALL ITEMS | MILES | 14.362 | 87.135 | | 101.497 | 351.095 |
| | COST | 300,278 | 6,197,455 | | 6,497,733 | 600,019 |
| | COST/MILE | 20,907 | 71,124 | | 64,018 | 1,708 |

STATE HIGHWAY COMMISSION OF MONTANA
PLANNING SURVEY SECTION

SUMMARY OF ROADWAY MILEAGE AWARDED BY NUMBER OF TRAFFIC LANES
DURING CALENDAR YEAR 1969

TABLE 5

DECEMBER 31, 1970

| NO. LANES | MILES | COST | COST/MILE |
|-------------------|---------|------------|-----------|
| INTERSTATE SYSTEM | | | |
| 2 | .733 | 83,436 | 113,828 |
| 4 | 84.339 | 30,243,439 | 358,593 |
| TOTAL | 85.072 | 30,326,875 | 356,484 |
| PRIMARY SYSTEM | | | |
| 2 | 36.978 | 7,457,623 | 201,677 |
| 4 | 8.576 | 4,881,991 | 569,262 |
| TOTAL | 45.554 | 12,339,614 | 270,878 |
| SECONDARY SYSTEM | | | |
| 2 | 74.433 | 6,468,276 | 86,900 |
| 4 | | | |
| TOTAL | 74.433 | 6,468,276 | 86,900 |
| ALL SYSTEMS | | | |
| 2 | 112.144 | 14,009,335 | 124,922 |
| 4 | 92.915 | 35,125,430 | 378,038 |
| TOTAL | 205.059 | 49,134,765 | 239,612 |

STATE HIGHWAY COMMISSION OF MONTANA
PLANNING SURVEY SECTION
SUMMARY OF STRUCTURES BY TYPE
DURING CALENDAR YEAR 1969
INTERSTATE SYSTEM

TABLE 6

DECEMBER 31, 1970

| BRIDGE TYPE | CODE | NO. OF STRUCTURES | SQ. FT. STRUCTURES | TOTAL COST | COST / SQ. FOOT |
|---------------------|------|----------------------|-----------------------|------------|--------------------|
| TIMB. GIRD. | X001 | 1 | 588 | 2,353 | 4.001 |
| CONC. SLAB | X220 | 5 | 31,902 | 392,193 | 12.293 |
| CONC. GIRD | X221 | 1 | 4,940 | 62,257 | 12.602 |
| STEEL GIRD. | X031 | 2 | 89,658 | 1,853,664 | 20.674 |
| | X131 | 1 | 22,648 | 412,664 | 18.220 |
| | X631 | 1 | 5,124 | 399,164 | 77.900 |
| | X731 | 1 | 9,792 | 127,675 | 13.038 |
| | X931 | 2 | 64,144 | 1,219,719 | 19.015 |
| COMP. S/C GIRD. | X071 | 2 | 106,352 | 2,383,049 | 22.407 |
| | X771 | 2 | 50,424 | 833,691 | 16.533 |
| | X971 | 2 | 98,904 | 2,264,619 | 22.897 |
| CONC. PRESTR. GIRD. | X081 | 2 | 18,209 | 241,474 | 13.261 |
| | X281 | 5 | 67,993 | 797,888 | 11.734 |
| | X481 | 2 | 36,012 | 416,661 | 11.570 |
| | X781 | 5 | 70,182 | 900,338 | 12.828 |
| | X981 | 1 | 12,628 | 235,105 | 18.617 |
| | | 35 | 689,500 | 12,542,514 | 18.190 |

STATE HIGHWAY COMMISSION OF MONTANA
 PLANNING SURVEY SECTION
 SUMMARY OF STRUCTURES BY TYPE
 DURING CALENDAR YEAR 1969
 PRIMARY I SYSTEM

TABLE 6A

DECEMBER 31, 1970

| BRIDGE TYPE | CODE | NO. OF STRUCTURES | SQ. FT. STRUCTURES | TOTAL COST | COST / SQ. FOOT |
|---------------------|------|----------------------|-----------------------|------------|--------------------|
| CONC. SLAB | X020 | 2 | 3,060 | 150,103 | 49.053 |
| STEEL-CONC. SLAB | X040 | 2 | 3,400 | 95,932 | 28.215 |
| CONC. PRESTR. GIRD. | X081 | 3 | 16,412 | 226,761 | 13.816 |
| | X181 | 1 | 10,120 | 132,261 | 13.069 |
| | | 8 | 32,992 | 605,057 | 18.339 |

STATE HIGHWAY COMMISSION OF MONTANA
 PLANNING SURVEY SECTION
 SUMMARY OF STRUCTURES BY TYPE
 DURING CALENDAR YEAR 1969

TABLE 6C

SECONDARY SYSTEM

DECEMBER 31, 1970

| BRIDGE TYPE | CODE | NO. OF STRUCTURES | SQ. FT. STRUCTURES | TOTAL COST | COST / SQ. FOOT |
|---------------------|------|----------------------|-----------------------|------------|--------------------|
| CONC. SLAB | X020 | 1 | 930 | 50,488 | 54.288 |
| CONC. PRESTR. GIRD. | X081 | 3 | 19,791 | 324,147 | 16.378 |
| | | 4 | 20,721 | 374,635 | 18.079 |

STATE HIGHWAY COMMISSION OF MONTANA
PLANNING SURVEY SECTION
SUMMARY OF STRUCTURES BY TYPE
DURING CALENDAR YEAR 1969

TABLE 6D

ALL SYSTEMS

DECEMBER 31, 1970

| BRIDGE TYPE | CODE | NO. OF STRUCTURES | SQ. FT. STRUCTURES | TOTAL COST | COST / SQ. FOOT |
|---------------------|------|----------------------|-----------------------|------------|--------------------|
| TIMB. GIRD. | X001 | 1 | 588 | 2,353 | 4.001 |
| CONC. SLAB | X020 | 3 | 3,990 | 200,591 | 50.273 |
| | X220 | 5 | 31,902 | 392,193 | 12.293 |
| CONC. GIRD | X221 | 1 | 4,940 | 62,257 | 12.602 |
| STEEL GIRD. | X031 | 2 | 89,658 | 1,853,664 | 20.674 |
| | X131 | 1 | 22,648 | 412,664 | 18.220 |
| | X631 | 1 | 5,124 | 399,164 | 77.900 |
| | X731 | 1 | 9,792 | 127,675 | 13.038 |
| | X931 | 2 | 64,144 | 1,219,719 | 19.015 |
| STEEL-CONC. SLAB | X040 | 2 | 3,400 | 95,932 | 28.215 |
| COMP. S/C GIRD. | X071 | 2 | 106,352 | 2,383,049 | 22.407 |
| | X771 | 2 | 50,424 | 833,691 | 16.533 |
| | X971 | 2 | 98,904 | 2,264,619 | 22.897 |
| CONC. PRESTR. GIRD. | X081 | 8 | 54,412 | 792,382 | 14.562 |
| | X181 | 1 | 10,120 | 132,261 | 13.069 |
| | X281 | 5 | 67,993 | 797,888 | 11.734 |
| | X481 | 2 | 36,012 | 416,661 | 11.570 |
| | X781 | 5 | 70,182 | 900,338 | 12.828 |
| | X981 | 1 | 12,628 | 235,105 | 18.617 |
| | | 47 | 743,213 | 13,522,206 | 18.194 |

STATE HIGHWAY COMMISSION OF MONTANA
PLANNING SURVEY SECTION

SUMMARY OF ROADWAY MILEAGE AWARDED
BY AVERAGE DAILY TRAFFIC
(NEW OR RECONSTRUCTED ROADWAY ONLY)
DURING CALENDAR YEAR 1969

TABLE 7

DECEMBER 31, 1970

SYSTEM - INTERSTATE

| AVERAGE DAILY TRAFFIC | MILEAGE | COST | COST PER MILE |
|-----------------------------|---------|---------------|---------------|
| 0001-0049 | .000 | | |
| 0050-0099 | .000 | | |
| 0100-0199 | .000 | | |
| 0200-0299 | .000 | | |
| 0300-0399 | .000 | | |
| 0400-0499 | .000 | | |
| 0500-0999 | 24.389 | \$ 6,968,232 | \$ 285,712 |
| 1000-1499 | 5.397 | \$ 1,997,921 | \$ 370,191 |
| 1500-1999 | 22.432 | \$ 6,220,890 | \$ 277,322 |
| 2000-2999 | 32.854 | \$ 15,139,832 | \$ 460,821 |
| 3000-4999 | .000 | | |
| 5000-OVER | .000 | | |
| TOTAL | 85.072 | \$ 30,326,875 | \$ 356,484 |

STATE HIGHWAY COMMISSION OF MONTANA
PLANNING SURVEY SECTION

SUMMARY OF ROADWAY MILEAGE AWARDED
BY AVERAGE DAILY TRAFFIC
(NEW OR RECONSTRUCTED ROADWAY ONLY)
DURING CALENDAR YEAR 1969

TABLE 7A
SYSTEM - PRIMARY I

DECEMBER 31, 1970

| AVERAGE DAILY TRAFFIC | MILEAGE | COST | COST PER MILE |
|-----------------------------|---------|---------------|---------------|
| 0001-0049 | .000 | | |
| 0050-0099 | .000 | | |
| 0100-0199 | .000 | | |
| 0200-0299 | .000 | | |
| 0300-0399 | 5.918 | \$ 1,019,986 | \$ 172,353 |
| 0400-0499 | 7.734 | \$ 1,628,579 | \$ 210,573 |
| 0500-0999 | 14.801 | \$ 2,455,825 | \$ 165,922 |
| 1000-1499 | .000 | | |
| 1500-1999 | 2.592 | \$ 1,090,229 | \$ 420,613 |
| 2000-2999 | 8.388 | \$ 2,113,174 | \$ 251,928 |
| 3000-4999 | 1.471 | \$ 1,093,850 | \$ 743,609 |
| 5000-OVER | 4.650 | \$ 2,937,971 | \$ 631,821 |
| TOTAL | 45.554 | \$ 12,339,614 | \$ 270,878 |

STATE HIGHWAY COMMISSION OF MONTANA
PLANNING SURVEY SECTION

SUMMARY OF ROADWAY MILEAGE AWARDED
BY AVERAGE DAILY TRAFFIC
(NEW OR RECONSTRUCTED ROADWAY ONLY)
DURING CALENDAR YEAR 1969

TABLE 7C

DECEMBER 31, 1970

SYSTEM - SECONDARY

| AVERAGE DAILY TRAFFIC | MILEAGE | COST | COST PER MILE |
|-----------------------------|---------|--------------|---------------|
| 0001-0049 | .000 | | |
| 0050-0099 | 43.386 | \$ 3,304,357 | \$ 76,161 |
| 0100-0199 | 26.221 | \$ 2,422,034 | \$ 92,370 |
| 0200-0299 | .000 | | |
| 0300-0399 | 3.920 | \$ 560,753 | \$ 143,049 |
| 0400-0499 | .689 | \$ 122,426 | \$ 177,686 |
| 0500-0999 | .000 | | |
| 1000-1499 | .217 | \$ 58,706 | \$ 270,534 |
| 1500-1999 | .000 | | |
| 2000-2999 | .000 | | |
| 3000-4999 | .000 | | |
| 5000-OVER | .000 | | |
| TOTAL | 74.433 | \$ 6,468,276 | \$ 86,900 |

STATE HIGHWAY COMMISSION OF MONTANA
PLANNING SURVEY SECTION

SUMMARY OF CONTRACTED AND
NON-CONTRACTED COSTS BY SYSTEM
DURING CALENDAR YEAR 1969

TABLE 8

DECEMBER 31, 1970

| SYSTEM | CONTRACTED COST | NON CONTRACTED COST | TOTAL |
|------------|-----------------|---------------------|---------------|
| INTERSTATE | \$ 56,405,157 | \$ 6,152,890 | \$ 62,558,047 |
| PRIMARY I | \$ 12,707,034 | \$ 1,352,894 | \$ 14,059,928 |
| SECONDARY | \$ 7,047,282 | \$ 760,222 | \$ 7,807,504 |
| TOTAL | \$ 76,159,473 | \$ 8,266,006 | \$ 84,425,479 |

